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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/594,221 | 06/14/2000 | Mark A. Horowitz | RB1-003US | 7838 |

29150 7590 10/10/2003

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| EXAMINER | |
|---|---|
| PHU, PHUONG M | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2631 | 8 |

DATE MAILED: 10/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/594,221 | HOROWITZ ET AL. | |
| | Examiner | Art Unit | |
| | Phuong Phu | 2631 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *19 August 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *6* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

## DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 8/19/03.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 22-24 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art.

As per claims 22-24, 32 and 33, see figure 1 and page 2, line 10 to page 3, line 13 of the specification of the instant application, the admitted prior art discloses a method and associated system comprising:

step/means having a first device (100), as claimed;

step/means having a first connector (102), as claimed;

step/means having a second connector (104) coupled to the first connector through a first plurality of conductors, as claimed ; and

step/means having a second device (106) coupled to the second connector through a second plurality of conductors, as claimed.

The admitted prior art does not disclose that the first device and second device have the same inductive coefficients. However, it is well-recognized in the art that there would be a mismatch occurs between the first device and second device in the admitted prior art system if

these two devices at the two ends do not have the same inductive coefficients, and the mismatch could lead to a degrade for system performance. On the other hand, implementing a system, which has a mismatch problem between two communication ends, with a matching circuit at the receiving end of the two communication ends in order to overcome the mismatch is well-known in the art, and the examiner takes Official Notice. Therefore, it would have been obvious for one skilled in the art to adjust the second device in the admitted prior art system by implementing a matching circuit at the second device in order to match the inductive coefficient of the second device with the one of the first device.

As per claim 34, admitted prior art does not disclose step of decoding signals outputted from the second device. However, the admitted prior art method is for driving signals for further processing. It would have been obvious that skilled in the art, for an application, could apply admitted prior art in a decoding system such that admitted prior art would pre-condition received signals and drive to them to a decoder for being decoded.

4. Claims 1-21, 25-31 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over prior art admitted by the applicant in the specification in the instant application, in view of Kish et al (5,282,754), newly-cited.

5. As per claims 1-6, 8-12, 14-20, 25-28, 30 and 35, see figure 1 and page 2, line 10 to page 3, line 13 of the specification of the instant application, the admitted prior art discloses a method and associated system comprising:

step/means having a first device (100), as claimed;

step/means having a first connector (102), as claimed;

step/means having a second connector (104) coupled to the first connector through a first plurality of conductors, as claimed ; and

step/means having a second device (106) coupled to the second connector through a second plurality of conductors, as claimed.

The admitted prior art does not disclose that said first connector and second connector have alternating pairs of said first plurality of conductors are reversed. However, it is well-recognized in the art that there would be crosstalk happening for signal transmissions through the connector assembly of said first and second connectors due to inductive couplings occurred in these connectors. On the other hand, Kish et al teaches that crosstalk due to electromagnetic coupling occurred between two connector devices connected through plurality of conductors can be eliminated or reduced by reversing alternating pairs of these conductors (see figure 4, and col. 4, lines 43-62). Therefore, it would have obvious for one skilled in the art, when building the admitted prior art system, to reverse alternating pairs of the first plurality of conductors connected between the first and second connectors, as taught by Kish et al, in order to eliminate or reduce crosstalk between these two connectors.

Further regarding to claims 9, 11, 27 and 26, the admitted prior art does not disclose that said second connector and second device have alternating pairs of said second plurality of conductors are reversed. However, it is well-recognized in the art that there would be crosstalk happening for signal transmissions through the connector assembly of said second connector and second device due to inductive couplings occurred in them, and furthermore that, pairs of the second plurality of conductors, corresponding to the reversed pairs of the first plurality of conductors, must be reversed so that signals on paths through theses pairs would be driven

properly in polarity to the second device. Therefore, it would have obvious further for one skilled in the art, when building the admitted prior art system, to reverse pairs of the second plurality of conductors, corresponding to the reversed pairs of the first plurality of conductors so that crosstalk between the second connector and second device could be eliminated or reduced and signals on path through theses pairs would be driven properly in polarity to the second device.

As per claims 7, 13, 21 and 31, the admitted prior art, in view of Kish et al, does not disclose that the first device and second device have the same inductive coefficients. However, it is well-recognized in the art that there would be a mismatch occurs between the first device and second device in the admitted prior art system if these two devices at the two ends do not have the same inductive coefficients, and the mismatch could lead to a degrade for system performance. On the other hand, implementing a system, which has a mismatch problem between two communication ends, with a matching circuit at the receiving end of the two communication ends in order to overcome the mismatch is well-known in the art, and the examiner takes Official Notice. Therefore, it would have been obvious for one skilled in the art to adjust the second device in the admitted prior art system by implementing a matching circuit at the second device in order to match the inductive coefficient of the second device with the one of the first device.

Claim 29 is rejected with similar reasons set forth above for claim 34.

***Response to Arguments***

6. Applicant's arguments, filed on 8/19/03, with respect to the rejection(s)of claim(s) 1-35 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made to the claims, as set forth above.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 703-308-0158. The examiner can normally be reached on M-F (8:30-6:00) First Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 703-306-3034. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Phuong Phu
Primary Examiner
Art Unit 2631

Phuong Phu
10/03/03

PHOUNG PHU
PRIMARY EXAMINER